Appendix 2: Summary of Selected Literature

Bibliographic Citation	Study Description	Relevance for Tele-mental Health in Primary care Reform
Full citation *Type of article (e.g., expert opinion, quasi-comparative, comparative)* *2nd Level Conclusions: (Reviewer's interpretations)*	*Brief description of the study including study design, methods and geographic location* *[See last page of this appendix for explanation of abbreviations]*	*How were mental health care services integrated into primary care reform?* *Were these services provided by telehealth? Could they be?* *What were some of the barriers to the adoption of tele-mental services in primary care reform?* *What were some of the potential ways around these barriers?* *Any key issues about mental or tele-mental health to highlight for practitioners engaged in primary care reform projects?* *Any implications for policy or decision-makers?* [Text in square brackets [like this] represent the reviewers interpretations or additional notes]
Baer, L., Elford, D.R., & Cukor, P. (1997). Telepsychiatry at Forty: What Have We Leaned? *Harvard Rev Psychiatry*, 5(1), 7-17. *2nd Level Conclusions:* *Quantity and quality of studies were poor *Technical quality issues seem to have been the source of most problems. Some indication that attitude and ability of practitioners and patients with respect to videoconferencing may help explain other negative findings. Some of the problems appear to be "growing pains".	Literature review of peer-reviewed articles describing video applications of telemedicine for psychiatry. (Searched Medline up to 1996). Focus on clinical and educational aspects with only limited reference to policy and medical-legal issues	Education: passive vs. active (interactive) applications ▪ one comparative study with small sample size ▪ mostly anecdotal evidence Clinical: ▪ uncontrolled descriptive studies: generally positive results with some mention of limitations ▪ controlled studies: less-positive findings emphasizing limitations and problems Clinical reliability was very high: ▪ correlation of 0.89 for MMSE (citing Ball et al. 1993) ▪ correlation of 0.99 for Y-BOCS, HDS, HAS (citing Baer et al. 1995) ▪ interrater reliability of 0.92 for BPRS (citing Salzman et al. 1996) Cost-effectiveness: potential for cost-effectiveness was described but not proven in 2 cited studies Heterogeneous patient populations, technologies, evaluation methods, etc., make generalization difficult The authors found a lack of evidence to either oppose or support routine use. The authors suggested a cautionary, exploratory approach to future use of telepsychiatry in remote communities

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		and in educational applications. [See more recent reviews by: Hilty et al. 2004; Hyler et al. 2005]
Barnett, J.E.& Scheetz, K. (2003). Technological Advances and Telehealth: Ethics, Law and the Practice of Psychotherapy. *Psychotherapy: Theory, Research, Practice, Training*, 40(1/2), 86-93. 2nd Level Conclusions: *It is imperative that physicians are aware of risks/ limitations of the use of various technologies. This awareness is essential to the success and development of these programs	Informed opinion article with selected literature review of ethical and legal considerations of using the telephone, fax, email and video conferencing.	Ethical and legal concerns are plentiful for all technologies. Procedural guidelines include: practice within the scope of their license and jurisdiction, obtain informed consent, ensure security and confidentiality, have community back-up in the user's locale in case of emergency, remain aware of the limitations inherent in the use of teletechnologies (e.g., is e-mail an effective therapeutic medium?), determine on a case-by-case basis whether this was an appropriate modality (risk-benefit assessment). Legal concerns- has a professional relationship occurred? i.e. via e-mails Interactive tele-video can be successfully used in a variety of settings Adhering to guidelines will ensure successful use of technologies in the delivery of mental health services.
Bischoff, R.J. (2004). Considerations in the Use of Telecommunications as a Primary Treatment Medium: The Application of Behavioural Telehealth to Marriage and Family Therapy. *The American Journal of Family Therapy,* 32, 173-187 2nd Level Conclusions: *Proactive steps should be taken to address trends toward the use of TMH.	Informed opinion article with selected lit review that outlines the advantages and barriers of various telecommunications methods and the delivery of primary mental health care in rural Nebraska.	Six domains to be considered when deciding on the use of telecommunications to deliver mental health care are: (1) convenience in terms of time, money, scheduling (2) Financial cost with connectivity and hardware expenses, fee-for-service (tele-mental health was not covered by standard health insurance in US.). (3) Quality of transmission can be variable (4) Client anonymity/security varies across methods (5) Access to a full range of information varies across methods (i.e. non-verbal communication, group work more difficult) (6) Ethical and legal issues have not kept pace with the technology. Make arrangements for local emergency back-up of remote/isolated clients. Advantages and barriers are discussed for telephone, email, chat rooms, internet, and audio/video options.

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*Provider and client education should be increased to establish Standard of Care Practices with tele-technology as a treatment method		Telecommunications can expand practice catchment areas. It was convenient and saved time and money for both practitioner and client It reaches underserved rural communities and also underserved urban centres with non-English-speaking populations.
Buist, A., Coman, G., Silvas, A., et al. (2000). An Evaluation of the telepsychiatry programme in Victoria, Australia. *Journal of Telemedicine & Telecare,* 6, 216-221 2nd Level Conclusions: *Health professionals and service managers view the technology as helpful yet a significant barrier may be their own technological inexperience.(cultural, technical, structural resistance) *High variation in service use between similar sites indicates that socio-cultural issues should be investigated further.	Descriptive Study/ Evaluation/ assessment of (1) the effectiveness of telepsychiatry in the state of Victoria in Australia, and (2), to identify service provision issues for both rural and remote clients and staff. Surveys and site visits used to collect data from all telepsychiatry sites (n=39: 12 urban, 27 rural) in the state. Survey instruments were developed for service managers and for health professionals (n=99) (n=37 urban, n=62 rural). Professions included: psychiatrists, psychiatric nurses, OT's, social Workers, students, teachers, managers. Catchment area = entire state 2001 Population =4.6M~12.4 live in communities of less than 7,000 people (Source: Gov. of Australia)	Estimated 5.1 sessions/month/per rural site (considered low) 41%- direct patient consults, 21%-case conferences, 20%-supervision of staff, 6%-secondary consultation, 6%-education, 3%-Mental Health Review Board & other uses Respondents reported improved access to services, time saving, improved care, improved communication among professionals and patients, and reduced admissions to hospitals. Use of technology equipment was highly variable due to geography, culture and experience with technology. Initial bad experiences with the technology influences later rate of use. Factors reducing usage of technology are: lack of familiarity with equipment/ technology, clinical culture of self-efficiency develops with rural practitioners over time (reluctant to refer), bad initial experiences with technology, shorter distances between centres, patient unease with technology, lack of experience of the service manager, lack of ownership and lack of central coordination. Viewed as a positive and helpful tool in the deliver of rural mental health services
Burley, H.J. (2002). What Do Family Physicians Want from Psychiatrists? *CPA Bulletin,* December 2002, 29-31. 2nd Level Conclusions:	Informed opinion: A full-time primary care liaison psychiatrist provides expert advice about what FPs want from psychiatrists	"What family physicians want from psychiatrists can be summed up in three words: access, communication and (respectful) relationships." (p 29) Access: FPs would like shorter wait times for outpatient consultations for both patient referrals and professional consults Communication: FPs would like formal and informal feedback on

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*FPs and psychiatrists need to develop mutually beneficial and respectful relationships *TMH could facilitate access to the other professional		patients that they have referred and advice on those patients they are thinking of referring Respectful relationship: FPs would like psychiatrists to be aware of the nature and demands of primary care practice and of the skill set required. FPs want the psychiatrists "to recognize and understand the centrality, breadth and depth of their therapeutic relationship with the patients they refer." (p 29) Other issues: FPs and psychiatrists may need to get creative in the way that they deal with time constraints, scheduling and remuneration
Burley, J. (2003). Initiating and Developing a Shared Care Relationship in Your Community. *CPA Bulletin*, April 2003, 34-36.	Informed opinion: A full-time primary care liaison psychiatrist provides expert advice about how to set up collaborative relationships	Psychiatrists looking to set up a shared care relationship should: ▪ choose a group of physicians with whom the psychiatrist can get along with and/or choose on the basis of need ▪ negotiate the extent and nature of the collaboration, specifically which services will be provided, to whom, for whom, when, where and how ▪ negotiate logistics, remuneration ("In Ontario, the GP and the specialist are not allowed to bill for the same patient in the same day." (p 35). ▪ in the author's experience "effective shared care in a fee-for-service environment is possible; however in a salaried setting or where GPs and psychiatrists are paid for their time rather than by patient encounters, opportunity exists for more collaboration time." (p 35). ▪ establish a good working relationship with the GPs front office staff ▪ liaise with other mental health care providers, local emergency department, specific clinics (e.g., mood disorder clinic), local department of psychiatry, many of whom will already have close ties with local GPs and their staff ▪ take advantage of and encourage informal and formal teaching and learning opportunities

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Cook, S., Howe, A., & Veal, J. (2004). A Different Ball Game Altogether: Staff Views on a Primary Mental Healthcare Service. *Primary Care Mental Health,* 2, 77-89. 2nd Level Conclusions: *Negative effects could be easily alleviated with the establishment of team member guidelines.	Descriptive Study (Case study) involving qualitative findings (interviews) to investigate the impact of new service on staff at mental health facility in the UK. Purposive sample: n=8, Semi-structured interview Multi-disciplinary team (GP, OT, nurse, psychiatric nurse, home manager, care worker). Participant observation was also used to collect data.	Staff identified key process components of the new service: (1) Clients had improved access to care (2) Individual needs of patients were (3) Community development aspect of the treatment results in reduced isolation (4) Positive effects on staff morale included feelings of hopefulness, being valued, inclusivity, and dynamism. (5) Negative aspects on staff morale occurred when staff felt isolated professionally or when experiencing competing demands for new and old roles. (6) Expanded roles allows for full utilization of the team members skills and skill development (7) Improved co-ordination, continuity and communication. Primary care potentially able to ability to maintain care and reach larger numbers of people while reducing stigma.
Cornish, P.A., Church, E., Callanan, T., et al. (2003). Rural Interdisciplinary Mental Health Team Building via Satellite: A Demonstration Project. *Telemedicine Journal & e-Health,* 9(1), 63-71 2nd Level Conclusions: *Assess FHT needs for MH Training *consider TMH for clinical & educational training	Descriptive Study: Qualitative and quantitative assessment of tele-mental health training sessions to rural health professionals, in NFLF & Labrador by an urban mental health training team over 14 months Videoconferencing sessions (n=12) offered to rural physicians, RN's, NP's, clergy, police, and Social workers (n=34), by urban mental health team (n=5) (psychologists, psychiatrist, and family physicians)	Assess FP needs for mental health training Professionals were reluctant (initially) to discuss specific cases due to concerns about patient confidentiality, especially in small communities Educational and clinical uses: ▪ promote awareness of roles of other professionals ▪ improve cross-disciplinary connections ▪ confidence of non-clinicians improved (due to improved recognition, improved knowledge of what to do, etc.) Limitations: ▪ technical problems ▪ medical hierarchy ▪ multidisciplinary not interdisciplinary ▪ need for community leadership
Craven, M.A, Cohen, M., Campbell, C., et al. (1997). Mental Health Practices of Ontario Family Physicians: A Study Using Qualitative Methodology. *Canadian*	Descriptive Study: Facilitated 90-minute discussions with family physicians (convenience sample) 56 providers 7 focus groups of 4 to 12 participants (mean=8)	Caring for mental health needs was a major part of the FPs job (25-50% of the FPs time) Common problems reported by FPs included depression and anxiety and mental dysfunction Behavioural problems in children and adolescents plus eating disorders, drug abuse and unplanned pregnancies

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Journal of Psychiatry, 42, 943-949 2nd Level Conclusions: *Complexity of medical and mental health needs in any given patient may require a flexible approach to care management. *TMH could provide some of that flexibility	Ontario Health Regions	"Virtually all family physicians cared for patients with dementia, somatization disorder, alcoholism, bipolar disorder, and chronic schizophrenia. Often they were the patient's only mental health provider." (p 944) Frequent overlap of physical and emotional problems FPs need to probe for underlying issues: mental health problems may be causing physical symptoms, conversely mental health problems might be caused by physical or emotional abuse. "Most family physicians were comfortable dealing with major depression and prescribing antidepressants." (p 945) Some concern over monitoring medications issued by psychiatrists Ethical and practical issues as to whether or not the FP should/would probe for possible mental health issues and when/who to refer to other providers Mental health crises should receive the same degree of concern and attention as medical emergencies FPs need to be able to recognize and respond to the "window of opportunity" to treat a patient "The family physicians in our study emphasized that dealing with comorbid physical and emotional problems require a flexible patient-centred approach to care, with frequent shifts of focus between physical and emotional symptoms and integration of physical and mental health interventions." (p 945-946) "This makes it difficult to describe family physicians' mental health interventions in terms of traditional psychiatric treatment processes." (p 946) Lack of psychiatric consultation and backup identified as a major issue by 5 of the 7 groups. "The other 2 groups, one rural and one northern, indicated that they had been functioning without psychiatric resources for so long that they no longer expected them." (p 946) "Family physicians emphasized that access to timely consultation was not a problem with any other specialty." (p 946) OHIP "billing codes failed to recognize the overlap between medical and mental health care." (p 946)

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Dew, K., Dowell, A., McLeod, D., et al. (2005) "This glorious twilight zone of uncertainty": Mental health consultation in general practice in New Zealand. *Social Science & Medicine*, 61, 1189-1200. 2nd Level Conclusions: *Important to acknowledge the central role of GP in MH diagnoses. *TMH support for GP's could alleviate the effect of some of these influences *Complications: need to ensure that protocol and location of telehealth room does not identify patient as a mental health patient or social stigmatization may result.	Descriptive Study (Exploratory/Qualitative) Discussion groups of GPs/FPs to discuss why people did/did not disclose mental health issues and whey issues were not always recognized by GPs/FPs (fictional vignettes) New Zealand	The research uncovered four main themes (barriers) lessening the delivery of mental health care to patients by GP's. (1) *Practice pressure:* time allotment per patient is insufficient, poor relationships between primary and secondary care specialists. (2) *Medico-legal*: pitfalls to medical labelling for the patient, (3) *Socio-cultural*: stigmatization to patient once labelled with a MHD, ethno-cultural trait of stoicism in the population, fear of loss of freedom by patient (4) *Dynamic of consultation process*: Physician is trained to prioritize physical over mental in treatment process, symptoms must be "overt" for diagnosis. GP's have not been given adequate models under which to make confident diagnoses, therefore, no diagnosis is made. Access to mental health services could be improved because people could visit GP/FP "without having to admit to others that it is a mental health problem" (p1192) Some mental health counselling may be indirect as the GP-FP alleviates patients' fears by allowing the patient to talk through their fears/problems.
Gagnon, M.P., Godin, G., Gagné, C., et al. (2003). An adaptation of the theory of interpersonal behaviour to the study of telemedicine adoption by physicians. *International Journal of Medical Informatics*, 71, 103-115. 2nd Level Conclusions: Physician use of telemedicine is necessary for the full emergence and sustainability	Descriptive Study: Structural equation modelling was used on questionnaire responses to determine beliefs, commonalities and personal values held by physicians toward their intended use of telemedicine. Pilot testing on a convenience sample (42 of 60) with re-test (n=20). 3832 mail-outs, 519 valid responses. 62% males, 57% specialists Average of 16 years of practice	The main predictors of physician intent to use telemedicine were (1) social and personal norms ("My colleagues would recommend it." "I consider that using telemedicine is correct for a physician of my specialty."); and (2) self-identity (measures of "the difference between the physicians' beliefs regarding characteristics of telemedicine users and their evaluation of the acceptance of these characteristics for themselves." (p 107). Other factors, identified in a functional model with some support in the studies were not significant predictors of intent. These included: (1) perceived consequences (e.g. "Using telemedicine in my practice would facilitate access to expertise"); (2) facilitating conditions (e.g., technical quality, clinicians' resistance); (3) habit (e.g., past frequency of telemedicine use); (4) affect (e.g. "For

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of tele-networks.	Respondents considered to be representative with respect to age, gender and specialty. Urban respondents were under-represented.	me, using telemedicine in my practice would be (a) stressful or (b) relaxing")
Gammon, D., Bergvik, S., Bergmo, T., et al. (1996). Videoconferencing in psychiatry: a survey of use in northern Norway. *Journal of Telemedicine & Telecare*, 2, 192-198	Descriptive study - Survey to assess acceptance and use of videoconferencing (V/C) among mental health professionals ~35 V/C units available to mental health care Results from 184 questionnaires completed by 26 mental health institutions (June-December 1995) Completed questionnaires were available for 62% of eligible sessions Norway	Average of 8 people/session, 1.3 hours long Use: 50% of sessions for meetings; 21% training; 14% clinical work (with/without patient); 10% Education; and 5% tests/demonstrations. Users: 21% psychologists, 20% psychiatric nurses, 7% psychiatrists, 21% other professions, 20% unknown, 1% patients. Alternatives: 59% travel; 25% no alternative (new service); 14% telephone; and 2% mail/fax. Problems: 55% none reported; 19% audio; 14% picture; 5% no contact; 5% disconnected; and 2% other problems Satisfaction: 29% very satisfied; 58% satisfied; 8% indifferent/uncertain; 3% dissatisfied; and 2% totally dissatisfied
Glueckauf, R.L., Pickett, T.C., Ketterson, T.U., et al. (2003). Preparation for the Delivery of Telehealth Services: A Self-Study Framework for Expansion of Practice. *Professional Psychology: Research & Practice,* 34(2), 159-163. 2nd Level Conclusions: *STEPS may provide a foundation for "best practices" in TMH.	Informed Opinion: Template was based on APA guidelines regarding standard preparatory training for licensure and accreditation for professional psychologists. The authors offer a template for a self-study framework for a psychologist to use to expand their skill base in preparation for the use of TMH, and to identify knowledge need areas.	STEPS is set of questions to be used as a guideline (tool) for self-assessment for professional psychologists to identify strengths/weaknesses in their knowledge regarding the delivery of TMH. The five knowledge and competency domains are: (1) State regulatory and licensure issues, (2) Technical issues, (3) Ethical issues, (4) Professional relationship issues, (5) Specific training requirements. Attention to STEPS issues will provide the psychologist with an understanding of the implications of the changes in the client-provider relationship.

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Hannigan, B. (1999). Joint Working in Community Mental Health: Prospects and Challenges. *Health & Social Care in the Community,* 7(1), 25-31. 2nd Level Conclusions: *Early policy directives need to be examined and possibly revised to identify and remove barriers to effective and efficient running of community mental health teams	Informed opinion: A review of policies, procedures, priorities, structures and mechanisms by which mental health care is provided by different providers and agencies in the UK in the wake of reforms at the strategic level.	Structural, operational and professional barriers challenge the efficient and effective running of Community Mental Health Teams (CMHT')s in Britain. Structural barriers: multiple purchasers of mental health services, arbitrary responsibility divisions with separate policy, unshared geographical, financial boundaries and unpooled resources Operational Level Barriers: tension around goals, priorities, target client groups, roles and responsibilities of professional groups, eligibility for services, standardized documentation, compatibility of information technology, team leader issues, agreement toward management and accountability. Professional Barriers: limited understanding of concepts, language and values of other disciplines, professional boundaries encouraged by separate training. Fundamental problems exist in the coordination of care at structural, financial, organizational and professional levels. Policy and organizational change is necessary to unite budgets, planning and purchasing of mental health services to better coordinate the effectiveness of CMHT's.
Hilty, D.M., Marks, S.L., Urness, D., et al. (2004). Clinical and Educational Telepsychiatry Applications: A Review. *The Canadian Journal of Psychiatry*, 49(1), 12-23	Literature review of videoconferencing applications of psychiatry Keyword search in 7 databases for January 1965 to July 2003.	Technical aspects have implications for service delivery (in terms of picture clarity, continuity and coordination of images, and sound. Out-of-sync voice and picture or transmission delays detract from the quality of service delivery and perhaps detract from quality of care) "A full range of evaluation, consultation, and management services have been carried out by telemedicine" (p.13) including: case management; decision support; disease prevention and management; legal hearings; forensic evaluation; transplant evaluation; neuropsychological evaluation; individual, family, and group therapy; home, outpatient, nursing home, and inpatient care; personal and social support. "Improved access to psychiatric care in rural (2,3,5,19,20), suburban (5) and urban areas (6)." (p 14, numbers in parentheses refer to references cited in the review).

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		Links specialist with providers in underserved areas virtually brings specialists into the PCPs office rather than sending patients to specialist's office "In general diagnostic reliability appears to be excellent with telepsychiatry, with only a few studies detecting minor limitations." (p 14) Sometimes there are less reliable ratings for adults and geriatric patients for certain types of tests (BPRS, MMSE) Need more… ▪ rigorous assessment (telepsychiatry and alternatives) ▪ data on patient outcomes for all age groups and disorders ▪ specific satisfaction measures and cofounders (age, gender, ethnicity) ▪ state-and trait-dependent factors (e.g., acute depression versus depression in remission) ▪ description of technology ▪ cost ▪ longitudinal evaluation Authors summarize 10 "guidelines for program viability and for delivering quality service" including: ▪ patient and provider needs-based ▪ financial support and incentives ▪ appropriate and approved equipment ▪ adequate training ▪ technical maintenance and support ▪ scheduling ▪ measure outcomes, satisfaction and costs for all those involved "Specialist participation requires resolution of various issues, including remuneration, clinical responsibility from a distance, impact on usual practice, credentialing, and medico-legal coverage, as well as organizational support to supply service to remote populations." (p 21)

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Hyler, S.E, Gangure, D.P., & Batchelder, S.T. (2005). Can Telepsychiatry Replace In-Person Psychiatric Assessments? A Review and Meta-analysis of Comparison Studies. *CNS Spectrums,* 10(5), 403-413.	Meta-analysis and literature review: (1) to compare telepsychiatry to face-to-face psychiatric assessment. (2) to determine whether telepsychiatry can replace in-person (I-P) assessment. Studies were identified using relevant keywords from Medline and PsycINFO from 1956 to 2002. The search yielded 380 studies. 17 studies with sample size >10 were selected. 7 studies were judged high quality, 5 as moderate, 2 as low and 3 were excluded due to insufficient statistical data. Quantitative statistics was used to establish an effect size.	14 studies were found that lent themselves to the measurement of ES. The majority of studies were Canadian and American. The rest were from Japan, Australia, UK, and France. No statistically discernable difference was found for assessment and diagnosis values (n=3), for patient satisfaction (n=9) or for doctor satisfaction (n=3) Results for doctor satisfaction were more variable Evidence for a slight superiority of in-person sessions over telepsychiatry that used lower bandwidths but no difference when higher bandwidths were used Anecdotal reports that both doctors and patients seem to prefer in-person sessions over telepsychiatry, particularly if low bandwidth is used. Issues of ongoing treatment were not included in this study Studies on internet webcams, chat rooms, emails and telephones were excluded.
Hyler, S.E. & Gangure, D.P. (2004). Legal and Ethical Challenges in Telepsychiatry. *Journal of Psychiatric Practice,* 10 (4), 272-276 2nd Level Conclusions: *formal nation-wide professional ethical guidelines are required	Informed Opinion: *Clinical vignettes* are used to illustrate issues and propose solutions for licensure and credentialing, privacy, security and confidentiality, informed consent, malpractice and professional liability USA	Uncertainty of state law legislation concerning licensure at both the host and base institutions remains a barrier to the use of TMH. Jurisdictional liability is difficult to determine with multiple participants at multiple sites. Federal privacy law has been enacted that overrides state law regarding privacy protections only if the state law is less stringent. TMH practitioners must deal with multiple privacy standards. Informed consent must include a risks/benefits assessment. Written consent is becoming a standard in some programs. Professional liability insurance is handled on a case-by-case basis because no clear guidelines exist for professional coverage. There are few guidelines regarding professional liability, ethics, informed consent and privacy in the U.S. regarding the use of telemedicine.

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Janca, A. (2000). Telepsychiatry: an update on technology and its applications. *Current Opinion in Psychiatry.* 13, 591-597 2nd Level Conclusions: *Telepsychiatry is a viable sustainable option to many, but not all, face-to-face interactions, education, and training.	Informed Opinion: summary of a literature review conducted by the Royal Australian and New Zealand College of Psychiatrists. Cross-national study of the use of telepsychiatry using Australia as a starting reference.	Video conferencing is the central technology in use for telemedicine. Main clinical uses of telepsychiatry: consultation; referral; collaborative care; case reference; out patient care; inpatient support; and medico-legal and forensic assessments and reviews Applications: (1) *adult psychiatric care*: no patients refused to participate (ref 8), access to psychiatric opinion was expedited (ref 9), acceptance was optimal (refs 8-10), primary care consultation was viable, in anxiety and depression cases doctor-patient relationship seemed compromised (ref 13). (2) *child and adolescent care*: video conference diagnosis matched in-person diagnosis 96% of the time (CND)(US)(refs 16-17),flexible, effective tertiary service, teaching, administration cost-saving increase (AUS) (ref 18), main educational uses: "case presentations and case conferences, discussions of clinical and research topics and individual supervision of trainee psychiatrists."(p 594) (3): *Educational Applications* use of video conferencing in for the training and education of mental health care professionals is useful with enthusiastic participation. (4) *Research and evaluation:* positive outcomes for accessibility, timeliness, decreased work time loss, high satisfaction rates, reliable diagnoses, comparable clinical outcomes (refs 22, 23, 25-29). Disadvantages arose around the presence of technical difficulties, impersonality, confidentiality concerns, older patients less cooperative (ref 24). Australia leads the world in the use of telepsychiatry. Recognition of primary care providers for the delivery of telepsychiatry has increased significantly. Telepsychiatry is a sustainable option to provide support to primary care physicians in geographically isolated regions Limitations: In person care will always remain a preferred alternative (ref 3).
Judd, F., Fraser, C., Grigg, M., et al. (2002). Rural Psychiatry:	Literature review to examine the problem of delivery of mental	Rural and remote clients are unable to access MH services. Problems were categorized into three distinct realms: (1)

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Special Issues and Models of Service Delivery. *Dis Manage Health Outcomes,* 10(12), 771-781. 2nd Level Conclusions: *The need for new models of service delivery provides the opportunity to work outside the model of the "specialist as the direct provider of care." *Telepsychiatry also has the potential to reduce professional isolation and increase training opportunities	health services to rural and remote, areas of Australia. Relevant data were collected from Medline and Psychic from 1980 to 2002. This was supplemented by key textbooks and articles recommended by local experts in the field. The focus was on Canada, USA, UK, Australia and New Zealand.	*Characteristics of rural location and Community* – aging, sicker, poorer, unemployment, and indigenous populations. More racism, lack of personal privacy, language barriers, higher social stigmatization, lower consumer involvement in service provision. (2) *Availability of and Demands on mental health clinicians* –low distribution for all levels of mental health delivery personnel. Fewer resources and more diverse cases may place unrealistic expectations upon available providers. Limited workforce makes integration of services difficult. (3) *Changing role and focus of mental health services* – Shift to community-based treatment with inconsistent, inappropriate training, role restrictions results in poor case management. Rural evidence-based practice is limited by a historical neglect by researchers and policy makers. Smaller communities can't sustain diverse and comprehensive services set out by the new model for MH service delivery (multidisciplinary team approach); therefore primary care must deliver low-level services with mechanisms to access higher level services as required. Specialist access must be enabled in small communities via outreach services (fixed or mobile) or via telepsychiatry.
Kates, N., Craven, M., Bishop, J. et al. (1997a) Shared Mental Health Care in Canada. Canadian Psychiatric Association and The College of Family Physicians of Canada. Accessed and downloaded October 25, 2005 from http://www.cpa-apc.org/Publications/Position Papers/Shared.asp Position paper 1997-38	Informed Opinion: Policy paper to "highlight the advantages of greater collaboration between family physicians and psychiatrists and its benefits for both patients and providers and describe a range of practitioner behaviours, practices, and policies which could contribute to collaborative mental health care." (p 1 of 15) Canada	FPs are often the first point of contact for an individual with a mental health problem (citing Goldberg & Huxley 1980) Over 50% of people with mental disorders who receive mental health care receive it from their FP, often without the involvement of any other provider (citing Lin et al. 1996) Management Patterns: 1. management by FP alone; 2. by FP with advice/support from MH provider; 3. referral by FP to psychiatrist/psychiatric service for a consultation; and 4. referral to a psychiatrist/psychiatric service for continuing care [TMH in the context of primary care may have a role in management patterns 1-3] Collaborative working relationships between FP's and psychiatrists

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		is needed for the success of shared care [with or without TMH] Potential benefits of shared/collaborative care (p.3): ▪ enhanced quality of mental health care received ▪ improved access to psychiatric consultation when required ▪ improved access to psychiatric services when required ▪ increased skill and comfort on the part of family physicians in managing mental health problems ▪ increased effectiveness on the part of psychiatrists as consultants and supports to family physicians ▪ mutual support when managing complex mental health problems ▪ a more efficient and effective use of a available resources ▪ models that will enhance the mental health care provided for individuals living in more isolated communities ▪ elimination of some of the barriers that prevent better integration of mental health and primary care reform ▪ opportunities for collaborative projects that lead to the prevention or early detection of mental health problems [TMH may be able to assist the FP] To identify and treat mental health problems at an early stage, prevent relapse after an episode has been successfully treated, assist individuals and families in maintaining good mental health, coordinate the health and mental health services an individual may require, detect and treat the medical problems of individuals with mental disorders and encourage healthy lifestyle choices, and provide support and information for the families of individuals with a serious mental or physical illness." (refs 9, 10 & 26) (p 4). [In addition, TMH may be able to assist psychiatrists to] "provide comprehensive biopsychosocial assessments and formulations, play an active role in developing treatment plans, especially regarding the use of psychotropic medication, provide ongoing treatment or rehabilitation where appropriate, assist family physicians and other medical specialists in the management of individuals with comorbid medical disorders, and facilitate referrals to more specialized psychiatric services." (p 4) The authors assert that "most mental health reform planning

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		documents overlook the role of the family physician" and that there is a "lack of coordination between primary care reform and mental health reform…" (p 5) The authors note the potential applications for long-term care reform given that care recipients, "many of whom are elderly [and] often present with complex medical and psychiatric needs." (p 5)
		The authors also note that health care reform in the early 1990s came with service realignments and cost constraints that in many ways represent an off-loading of procedures and treatments from institutions to family practices. [It seems reasonable to expect that successful TMH programs will not add to and should, optimally, reduce the FPs' burden]
		[TMH could improve access to services in isolated communities/populations, but that additional resources/support may be needed, particularly in the short-term]
		Problems in the present relationship between psychiatry and family medicine:
		1. "broader systems issues such as the pace and demands of primary care, methods or remuneration, and poor coordination of planning within provincial ministries of health" (p 6) [TMH could be susceptible to these issues]
		2. specific issues:
		a. difficulty with access
		i) access limited by psychiatric referral procedures including eligibility issues with respect to the nature of the problem or geographic location
		ii) access limited by reluctance/ inability of FP to take responsibility for continuing mental health care after the patient has been stabilized
		b. problems in communication – from FP to psychiatrist and back to FP (for patient histories, care management recommendations, etc). Also includes communication as it relates to problems of access. Fragmentation of care among numerous providers may impede flow of information
		c. lack of personal contact between FPs and psychiatrists

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		contributing to problems in communication and possible facilitating stereotypic misconceptions and a lack of respect for the role of the other provider

Shared mental health care must address these issue [as must TMH as it pertains to primary care]

Clearly defined roles and responsibilities are needed. "[R]esponsibilities of care to be apportioned according to the treatment needs of the patient at different points in time in the course of a mental health problem and the respective skills of the family physician and psychiatrist." (p 7)

Strategies for implementing Shared Mental health Care:

1. improve communication (clear and helpful 2-way communication is essential)
2. establish family Medicare – Psychiatry Liaison Linkages
3. encourage visits by psychiatrists to family physician's offices

[TMH could be used to support these strategies]

"Utilization of newer technologies, such as videoconferencing, to provide clinical consultation and education input." (p 10) [As well as help in administrative and policy matters]

Possible Barriers to Implementation: (p12)

- the current fragmentation of planning between primary care and mental health services at both provincial and local levels in most Canadian provinces
- lack of recognition of the role of the physician in mental health reform and health care planning
- increasing patient loads faced by many family physicians and psychiatrists
- insufficient numbers of psychiatrists in certain parts of the country
- a lack of necessary skills in consultation to primary care physicians by some psychiatrists
- insufficient emphasis on primary care consultation in psychiatry residencies
- issues of confidentiality that may limit physician-to-physician communication
- a lack of clarity concerning the assignation of medicolegal

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		responsibility in shared mental health care ▪ negative attitudes on the part of some family physicians and psychiatrists toward the contributions that the other can make ▪ problems with current systems of remuneration, which do not cover indirect (non-patient contact) services such as case discussions, educational input, or travel to and from a family physician's office [some (many?) of these barriers may also apply to TMH] Selected system-wide changes [of particular relevance to TMH] (p.13) ▪ Evaluation protocols be developed to assess the impact of shared care on patient outcomes, service utilization, costs of health and mental health care delivery, and community well-being. These could be developed by one or more centres and made available on a province- or nationwide basis ▪ New funding approaches be developed to support the implementation of some of these strategies. Options could include the provision of alternate methods of remuneration for psychiatrists, such as sessional fees; changes in provincial fee schedules to cover services rendered by psychiatrists and family physicians that do not involve direct (the patient is seen) patient care; alternate funding arrangements for primary care, such as global budgets or capitation, which could fund services provided by psychiatrists; the secondment of mental health staff from clinics to family physician's offices; or incentives to encourage family physicians to spend necessary amounts of time with individuals with complex psychiatric disorders ▪ Regional planning authorities consider the potential role that shared mental health care could play in building continuous service networks ▪ Provincial planners continue to explore the possibilities of shared care approaches as part of the solution to the shortage of psychiatrists in isolated areas ▪ Academic departments of psychiatry and family medicine review their curricula to ensure that residents receive appropriate

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		preparation to enable them to work collaboratively after graduation
Kates, N., Craven, M., Crustolo, A.M., et al. (1997b). Integrating Mental Health Services Within Primary Care: A Canadian Program. *General Hospital Psychiatry*, 19, 324-332 Kates, N., Craven, M., Crustolo, A.M., et al. (1997c). Sharing Care: The Psychiatrist in the Family Physician's Office. *Canadian Journal of Psychiatry*, 42, 960-965	Descriptive study of mental health counsellors who were attached to 13 primary care practices (Health Service Organizations) (HSO) in Hamilton-Wentworth. ~ 1 FTE counsellor for 8000 patients. Psychiatrists visited 0.5 days every 1-3 weeks, depending on demand. Psychiatrists also provided consultation or advice by telephone. HSOs are rostered family medicine practices. 45 FPs in 13 HSOs (Kates et al. 1997b) 86 FPs in 36 HSOs (Kates et al. 1997d) 3085 referrals, 70% were female, 12% were less than 8 years old, 9% were older than 65 years (Kates et al. 1997b) Program began October 1994; expanded April 1996; ongoing in 2001	Psychiatrists visit HSO for 0.5 days every 1-3 weeks. Psychiatrists provided (1) direct case consultations; (2) limited number of follow-ups; (3) indirect services (patient's case is discussed/reviewed); and (4) education [Could some of these visits be replaced or augmented by TMH?] Counsellors worked in HSO with the number of hours per week depending on demand [Could TH be used to expand service hours to more patients? In other HSOs or group practices?] [Could TH be made available to HSOs counsellors with specific skill sets?] Program is centrally administered (funding recruitment, evaluation, training) "The presence of a counsellor or psychiatrist in the family physician's office creates closer working relationships and better communication in the management of cases." (Kates et al. 1997b p 329) "All notes are written in a single clinical record." (Kates et al. 1997b p 330) [One challenge for TH will be to ensure that the communication is as good or better] "A major problem of the program is trying to maintain regular contact with 87 family physicians and 36 practices and keep them informed about program developments." (Kates et al. 1997b p 331) [Could TH do this via regular teleconferences? Administrative, educational and clinical sessions?] Other problems include finding adequate office space and keeping up with the heavy demand for service [This may also be an issue with TH] New opportunities for patient education were being considered. [TH may provide a way to augment educational services and perhaps group counselling services] Potential for this program to assist individuals with chronic medical problems that may have mental health co morbidities [Could TH

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		be used to help integrate these services?] The program allowed for psychiatrists to provide consultation or advice by telephone [Could TH augment this service?] The following major achievements of the program outlined by Kates et al, 1997d could also be provided or augmented by telehealth services improved access to psychiatric consultation ▪ enhanced continuity of care ▪ increased support for FP ▪ improved communication ▪ strengthened contact among providers ▪ more efficient utilization of mental health services ▪ innovative approaches to physician education ▪ valuable experiences for learners
Kates N., Crustolo, A.M., Nikolaou, L., et al. (1997d). Providing Psychiatric Backup to Family Physicians by Telephone. *Canadian Journal of Psychiatry*, 42, 955-959	Descriptive study of the nature and number of calls from 5 family practices to one psychiatrist over 1 year. The psychiatrist visited each of the practices for half a day every other week Notes made by psychiatrist after each call. Providers: 1 psychiatrist 18 FPs in 5 practices serving 36,000 patients 6.5 FTE mental health counsellors Hamilton-Wentworth, southern Ontario	128 calls to psychiatrist over 1 year ▪ 63% from FPs (0-15 calls/FP) ▪ 37% from counsellors (1-13/counselor) ▪ 2.5 to 4.5 calls/1000 patients Variation among the 5 family practices in the rate of calls and who called ▪ 39% of calls for a patient in crisis (urgent) as defined by FP. Almost half of the urgent calls were for depression or suicide ideation and one-quarter were for psychosis (as defined by FP). In about one-quarter of the urgent calls, the patient was referred to emergency or inpatient psychiatric services ▪ 61% of calls for non-urgent issues. Almost one-third of non-urgent calls were for depression. One-fifth were for psychosis and one-sixth for family problems 80-90% of the psychiatrist's recommendations involved medications, about two-thirds included advice about management approaches and about 10% included information about other resources (psychiatrist could give multiple recommendations) Average time spent on the phone was 8 minutes. Average of 11

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		calls/month [TMH 'calls' may not be as easy to arrange as a phone call. Will they last 8 minutes on average? TMH probably should not replace all phone calls]
		The presence of a MH counsellor in the practice may decrease the number of calls made by the FP
		[The following conclusions from the telephone advice study may also apply to TMH]:
		1. provides [real-time] support to FP or MHW. May reduce referrals to intermediate levels of care
		2. enhances continuity of care by allowing FP and psychiatrist to discuss cases that may [or may not] need minor management adjustments
		3. leads to greater personal contact and mutual understanding among practitioners
		4. allows cases to be triaged over the phone
		"In many situations, the advice the psychiatrist can provide over the phone may not otherwise be available." (p 957) [There is the potential for the release of latent demand or initial over-use until the FP and psychiatrist become familiar with one-another's skills and personalities] The telephone support may allow the FP to manage more complex mental health problems
		The telephone backup service may be applicable to isolated communities with less frequent visits by the psychiatrist
		Funding is an issue if practitioners are only paid for face-to-face services and if telephone time become a substantial time commitment
		Medical-legal issues may arise as to who is ultimately responsible for patient care. These authors argue that it is the FP who is the "most responsible physician." (p 958)
Kates, N., Craven, M., Atkinson, M., et al. (2001a). How Psychiatrists View Their Relationships With Family Physicians. *CPA Bulletin,*	Descriptive study: Survey of Canadian Psychiatric Association Research Network. Sent in 2000 [by mail? [n=?, "sample size is relatively small") p 15), response	Psychiatrists reported on number and nature of contacts with FPs: ▪ 46% spent 15 minutes or less per week ▪ 20% spent 5 minutes or less per week ▪ Most contact was by phone (2.6 contacts/month) ▪ Increased phone contact was seen as the most feasible way of

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March 2001. 33(1), 13-15	rate=?]	increasing contacts with FPs ■ Younger psychiatrists and those who were hospital-based were more likely to visit FPs (rare overall) ■ Younger psychiatrists were more likely to see this as the most feasible way to increase contact with FPs (rare overall) [TH could augment telephone and in-person consults between FPs and psychiatrists] Education (undergraduate, residency and CME) should continue to promote collaborative relationships between FPs and psychiatrists Lack of support for collaborative practice for both sides: FPs and psychiatrists
Kates, N., Crustolo, A.M., Farrar, S., et al. (2001b). Integrating Mental Health Services into Primary Care: Lessons Learnt. *Families, Systems & Health*, 19(1), 5-12.	Descriptive study of mental health counsellors who were attached to 13 HSOs in Hamilton-Wentworth. ~ 1 FTE counsellor for 8000 patients. Psychiatrists visited 0.5 days every 1-3 weeks, depending on demand. Psychiatrists also provided consultation or advice by telephone. HSOs are rostered family medicine practices. 87 FPs serving 170,000 people. 1 MH counsellor for every 7500-8000 patients 4200 referrals in 1999, 75% seen by counsellor, 15% seen by psychiatrist, 10% seen by both Hamilton-Wentworth HSO Mental Health Program began October 1994; expanded April 1996; ongoing in 2001	The number of referrals (by FPs to in-house counsellors or visiting psychiatrists) increased from 5 per year to 55 while the number of referrals by FP to local outpatient clinics decreased by more than 60% [in 1999?] The number of in-patient psychiatric admissions decreased by 10% since the program was established These in-patient admissions may involve non complex cases This mode of service delivery has been effective in reducing depression (CES-D rating scale) Patient and provider satisfactions with program has been consistently above 90% [TH may be able to achieve the same outcome and has a history of high satisfaction ratings by all users] [Caveats about the lack of comparative data and small sample size apply to this visit program and to TH studies] Lessons learned that may be transferable to TMH: ■ Involve FPs in all aspects of project and be responsive to their needs ■ Build-in supports for counsellors (especially those in smaller practices who may need frequent contact with colleagues [which TH can provide] ■ Deal with space issues for counsellors in FP offices [similar issue

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		for TMH equipment] ■ Regular communication and contact between MHP and PCP ■ Ensure that patient notes are easily accessible by all providers ■ Recognize that not every provider is ready, willing and able to collaborate in this fashion ■ Build-in preparatory training for all providers ■ Ensure central coordination (scheduling) ■ Create educational/support group opportunities for patients and their families ■ Extend model to other services (e.g., nutrition) ■ Extend model to underserved populations and communities
Kates, N., Crustolo, A.M., Farrar, S., et al. (2002). Counsellors in Primary Care: Benefits and Lessons Learned. *Canadian Journal of Psychiatry*, 47(9), 857-862. See also Kates et al. (1997b,c,d; 2001a,b)	Descriptive study of MH counsellors who were attached on a part-time or full-time basis to 1-3 family practices. Psychiatrist visits each practice for half a day every 1-4 weeks. 41 MH counsellors in 23 FTE positions. 87 FPs in 50 practices Serving 180,000 patients, 3550 referrals in the year 2000, 13% were under 18 years of age, 8% were over 65 years of age Hamilton Health Service Organization Mental Health and Nutrition Program (established in October 1994 and expanded to current size in April 1996)	35% of referrals were for patients with depression 14% were for marital or separation issues 12% for anxiety 8% for family or parent-child problem 50% of patients seen just once, Average of 6 visits per referral 85% of patients seen for less than 1 year Counsellors' time: 62% face-to-face clinical contact; 5% in case review/discussion; 9% in charting; and 6% in other patient-related activities 88% of clinical time in individual treatment, 10% in couple or families treatment, 1% in leading group sessions Patient outcomes (n=900) CES-D and GHQ improved. Significant 65% reduction in referrals since program start. Non-significant 10% reduction in in-patient admissions and 8% shorter stay since program start. Patient satisfaction: average=92%. Provider satisfaction is consistently high Lessons learned, conclusions, etc., similar to that described in earlier papers (Kates et al. 1997b,c,d)
Kates, N., Fugure, C., & Farrar, S. (2004). Family Physician Satisfaction with Mental Health	Descriptive study: Mail survey of FPs to ask about their satisfaction with current mental health	FPs in HSOs were generally more satisfied with existing MH services than were fee-for-service HSO FPs were most satisfied (6.3/7) with MH services that were

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Services: Findings from a Community Survey. *CPA Bulletin,* April 2004, 36(2), 10-14.	services 147 responses to 285 mailouts 63% were males 53% of respondents worked in HSO practising for an average of 18 years with an average of 2000 patients Hamilton, Ontario	provided within primary care settings (a service not available to fee-for-service FPs) Satisfaction in both groups was lowest for children's services (3.3/7) All FPs reported that length of waiting time after referral needed the most improvement (4.6/7), but the other 5 process variables all needed improvement (4.1 to 4.4/7) FPs who had been in practise for more than 20 years and FPS with MH services in their office had higher satisfaction scores FP sex, medical school attended and practice size did not significantly affect satisfaction scores 61 of 147 responses provided additional comments. Problems identified by at least 50% included: [TMH could address these issues or help provide these services] 1. difficulties in referral process, more so than for other specialties. Perhaps a central agency is needed 2. the need for more timely and complete communication 3. the need for improved/more timely access for patients requiring "mental and family counselling or who are in crisis and require urgent rather than emergency services." (p 12) FPs rated the following specific suggestion as highly beneficial: [TMH could address these issues or help provide these services] ▪ list of private psychiatrists indicating their interests and availability ▪ telephone access to psychiatrists ▪ psychiatrist visits to FP office
McEwan, K.L., Goldner, E.M. (2002). Keeping Mental Health Reform on Course: Selecting Indicators of Mental Health Performance. *Canadian Journal of Community Mental Health*. 21(1), 5- 16 2nd Level Conclusions:	Informed Opinion: Critical review of the mental health reform agenda currently in place in Canada focussing on the selection and measurement of performance indicators.	Common Mental Health Reform Goals: (1) Increased access to services for the severely mental ill (SMI); (2) expanded community supports and services to address the demands after deinstitutionalization; (3) to offer a comprehensive range of services that extend beyond formal mental health services; (4) consumer and family involvement in planning; delivery and evaluation of care; and (5) improve quality of life for SMI people. Suggested indicators: (1) proportion of those receiving insured care service per year, proportion of those in contact with mental

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*TMH may offer a mode of service delivery to achieve goals *May need to adapt selected indicator for TMH		health specialists; (2) Community and institutional expenditures are proportionate, number of readmissions within 30 days of discharge per year, days not spent in hospital/ facility/ jail per year; (3) proportion receiving assertive community treatment, proportion in housing, proportion in vocational /educational programs; (4) number of self-help groups with public support, number of health authorities with regional consumer advisory groups, budget percentage allocated to consumer-directed initiatives; and (5) proportion of consumers reporting an increase in QoL over defined period. Goals reflect public, consumer, and stakeholder values Indicators do not cover all issues/needs Indicator set provides a multi-dimensional assessment of system performance
Nixon, D., Charles-Jones, H., Saunders, T.P. et al. (2003). Managing Mental Health in Primary Care: A Partnership Approach. *Primary Care Mental Health*, 1, 81-88	Case study of mental health project describing the development of multi-disciplinary mental health team in Primary care in the UK. Investigates the problems of poor access to a range of treatments, fragmentation of services, and poor agency communication delivered in primary care.	PCMHT's (Primary Care Mental Health Team) to include: occupational therapists, psychiatric nurses, support workers and psychologists. Single point of access for primary care referrals. Design individual packages, provide rapid assessment, responsible for management, outreach services, shared packages for clients with SMI, withdrawal services, support and rehab services. Utilizes a case study approach, education and training to team members, liaising with community organizations, development/adaptation of new roles of primary care. 100,000 population divided into 4 cluster areas of service PCMHT will potentially lessen referral rates to specialists and reduce duplication of health care services
Riba, M.B. (2001). Collaborative Treatment for Psychiatric Patients in the Primary Care Setting: Challenges. *Primary Psychiatry* 8(6), 29-44	Informed Opinion: outline of issues that arise when psychiatric treatment takes place in the primary care setting and how overlap issues might be resolved.	Problems with these forms of collaboration include: poor communication, overvaluation of medication, issues between therapists and physicians, defining roles of professionals, role of psychotherapy, transference and counter-transference, and confusion about who is in charge of patient care.

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	US	Positive aspects: more care to patient, learning experiences for clinicians, combined experience, increased clinical information on patient.
Sheahan, B.(2002). Remote communities, child telepsychiatry & primary health care. Y*outh Studies Australia,* 21(2), 52-55.	Informed Opinion: Discussion of mental health delivery to rural/ remote Australian communities.	Health care approach that builds internal community capacity (teams) may be more sustainable than transient professional staff placement with limited expertise. Videoconferencing can expand the range of services, consultants and programs. Concept of primary health care expanded. Physician to assume the role of facilitator of new range of services. Aboriginal involvement and understanding of the delivery of services - how to make people more comfortable with technology. Program options are numerous, consensus on pathways must be established. Examples of Tele-mental Health in rural areas include: "Mental Health Review tribunals, special consultations, family conferencing, admission/ discharge planning from distant mental health in- patient units, co-therapy with distant mental health in-patient units, staff supervision and staff training" (p.52), patient/community education, regular non-health related programs to reduce isolation, share knowledge and ideas (e.g. drama, music).
Stamm, B.H., & Perednia, D.A.(2000). Evaluating Psychosocial Aspects of Telemedicine and Telehealth Systems. *Professional Psychology: Research & Practice,* 31(2), 184-189	Informed opinion article explores the human aspects of the use of telehealth to provide mental health care. Introduces concepts from psychology to critique as well as expand the evaluation of TMH.	The research explores the psychosocial implications with the use of technology. A psychological focus allows for staff /clinician perspectives and issues to be investigated, i.e., time demands, training required, willingness to use informatics, remote consultations, maintenance of the service provider. Evaluation protocols can be designed to perform evaluations at various levels (small clinic, larger institution, patient) Suggests a multi-centred model Psychology can be used to determine the effectiveness of technology.

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Urness, D., Hailey, D., Delday, L., et al (2004) The Status of Telepsychiatry Services in Canada: A National Survey. *Journal of Telemedicine & Telecare,* 10, 160-164	Descriptive Study: Census of 14 Active telepsychiatry services in Canada using mail survey for fiscal year 2001/2. Questionnaires were returned by all 14 programs, though programs in two provinces were unable to provide utilization data because these programs had just started. Annual use was extrapolated from monthly use for 2 other programs.	In FY 2001/2 • Telepsychiatric programs were reported in all provinces/ territories except Nunavut. • 59% of clinical consults (11 programs) were for adults, 36% were for children/adolescents (10 programs) and 5% for geriatric clients (5 programs) • Number of clinical consults ranged from 5 to 176, with an average of 60 sessions/delivery site/year. • Approximately 45% of clinical consults were for initial assessment only, but this varied by program (range 20-100%) and by site. • 6 programs offered subspecialty services in "substance abuse, brain injury, schizophrenia, personality and mood disorder, psychological testing, forensic psychiatry, autism behaviour modification, culturally sensitive and language specific assessment and treatment, developmental behaviour, emergency psychiatry, mental health assessments, and multidisciplinary team consultations." (p 161-2) • 13 programs provided education activities (388 sessions) with 2-20 sites/ session • Programs also reported on administrative use of the TMH service, but results were quite variable (range 0 to 333 meetings / yr) • 3 programs in Ontario (NORTH Network, Project Outreach and University of Toronto) reported 19 – 109 consultations/ delivery site/ year, 20 -85% for initial assessment only, 2 -40 educational sessions/ year and 2 -17 sites/ educational session. • Annual average # of clinical sessions was 238, which is similar to that cited for American programs (206/ year in 1999, 403/ year in 2000). • In the authors opinion, the level of activity is modest and a threat to long-term sustainability.

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Yellowlees, P.M. (1997) Successful Development of Telemedicine Systems – Seven Core Principles. *Journal of Telemedicine & Telecare*, 3, 215-222	Informed opinion article that proposes 7 core principles for successful telemedicine systems.	The author asserts that human factors tend to determine the success or failure of telemedicine project. The 7 core principles are: 1. Select sites on the basis of need, potential utilization and the willingness of on-site staff (clinician-driver) to use and champion the service. 2. Clinician-driver and clinician-user must have a meaningful input into planning, implementation and evaluation. 3. Manage and support telemedicine from the bottom up rather than from the top-down. Support the clinicians. 4. Make the technology as user-friendly as possible and ensure its fit into the workplace and not vice-versa. 5. Provide technical training and support to clinicians. 6. Evaluate telemedicine in a clinically appropriate and user-friendly manner. Consider the impact on practise as well as on patient outcomes. 7. Share information of the development of telemedicine programs.
Yellowlees, P.M. (2000) The Future of Australasian Psychiatrists: Online or Out of Touch? *Australian & New Zealand Journal of Psychiatry*, 34, 553-559 2nd Level Conclusions: * An On-line health information *action plan* needs to be developed to organize the already heavily used and unregulated resource base	Literature review, internet site review, and author's experience. Commentary on teletechnologies available for health and how they will effect psychiatry and psychiatrists over the next ten years. (AUS & NZ)	Lack of understanding of politicians and policy-makers as well as cultural conservatism can be a barrier. Mental Health Provisions Act has eliminated most legal/administrative barriers (i.e. certification across state lines, multiple registrations in different states) –still a problem in USA. Health Insurance Commission creation of billing numbers may result in more extensive use in rural and remote areas. Patients accept the use of assessment and treatment on video, clinical assessment do not lack accuracy, good emotional contact is possible User-friendly, low-cost technology training packages available. Patients are already using the internet. New technologies must be accepted and developed to optimize effectiveness and positive outcomes for clients.

Abbreviations mentioned in the summary of selected literature

Abbreviation	Description		Abbreviation	Description
BPRS	Brief Psychiatric Rating Scale		MHW	Mental Health Worker
CES-D	Center for Epidemiological Studies – Depression Scale		MMSE	Mini-Mental Status Exam
DX	Diagnosis		NP	Nurse Practitioner
FHT	Family Health Team		RN	Registered Nurse
FP	Family Physician		SF-12	Short – Form -12
GHQ	General Health Questionnaire		TH	Telehealth
HAS	Hamilton Anxiety Scale		TMH	Tele-mental Health
HDS	Hamilton Depression Scale		V/C	Videoconferencing
HSO	Health Service Organization		Y-BOCS	Yale-Brown Obsessive-Compulsive Scale